

## **HIGH TEMPERATURE POWER SUPPLY**

### **ABSTRACT OF THE DISCLOSURE**

A high-temperature, regulated power supply uses wide band gap transistors to drive a Royer circuit. Pulses output from the Royer circuit are gated through a pulse width modulator to control the duty cycle of wide band gap transistors that drive an output transformer. The output of the transformer is rectified and filtered to provide the regulated D.C. output voltage. Regulation is accomplished by sampling the output voltage, comparing it to a reference voltage and using the difference between the output voltage and the reference voltage to control the pulse width modulator. High temperature operability is provided by using wide band gap transistors and iron or steel core transformers. This technique also provides a radiation hard assembly.

CHICAGO/#1183749.1